Name: _____ **Integrated Academic Skills**

Directions:
Evaluate the student by Yes, No, or NA to indicate the degree of competency. The rating for each task should reflect employability readiness rather than the grades given in class.

Rating Scale:

Yes – Academic knowledge area was delivered in the instructional program and was successfully met by the student.
No – Academic knowledge was delivered in the instructional program and was not successfully met by the student.
N/A – Academic knowledge was not delivered.

COMMUNICATION ARTS

Yes	No	N/A		Notes:
			1. Use standard English in speaking and writing (including grammar, usage, punctuation, spelling, capitalization)	
			Demonstrate oral and written skills	
			Use job-related vocabulary	
			Write an invoice	
			Write supply and work orders	
			Keep a journal of daily activities/tasks	
			2. Read and evaluate fiction, poetry and drama	
			Comprehend and apply case studies to classroom and job-site activities	
			3. Read and evaluate nonfiction works and material (such as biographies, newspapers, technical manuals)	
			Follow the procedures on a job sheet	
			Develop a care plan	
			Conduct research to find specifications	
			Read and interpret blueprints	
			Use the Internet or other online resources to retrieve information	
			4. Write formally (such as reports, narratives, essays) and informally (such as outlines, notes)	
			Take comprehensive notes	
			Keep a log book to document procedures used to solve problems	
			Keep records on job-related information	
			Complete a purchase requisition	
			Write a cover letter and resume	
			Write a business letter	
			Respond to a customer's written or oral request	

			5. Comprehend and evaluate the content and artistic aspects of oral and visual presentations (such as story-telling, debates, lectures, multimedia productions)	
			Evaluate lectures, sales presentations, and/or informational presentations	
			Evaluate video media (e.g. training, safety, health care)	
			Evaluate multimedia presentations	
			6. Participate in formal and informal presentations and discussions of issues and ideas	
			Perform job demonstrations and skills expositions	
			Debate and issue (e.g. masonry block wall verses poured in place concrete)	
			Present an idea to your supervisor or peers	
			Participate in a mock job interview	
			Participate in clinicals using health care techniques	
			7. Identify and evaluate relationships between language and culture	
			Demonstrate interpersonal skills when working with customers	
			Communicate with non-English speaking customers	
			Discuss diversity awareness (e.g. learning styles, socioeconomic, gender, race, and family issues)	

MATHEMATICS

Yes	No	N/A		Notes:
			1. Apply the concepts of addition, subtraction, multiplication, division, basic number sense (including numeration and estimation) in the workplace	
			Calculate the ingredient amount of supplies needed to prepare food	
			Estimate the amount of supplies needed to complete a task	
			Read a scale, ruler, tape measure, etc.	
			Use a calculator	
			Change pounds to kilograms and vice versa to obtain the weight of a client at a long-term care facility	
			2. Demonstrate geometric and spatial sense involving measurement (including length, area, volume) trigonometry, and similarity and transformations of shapes	
			Develop true lengths of lines in drafting (e.g. designing, a mountain tunnel connecting two different elevations)	

			Read measuring instruments in the trade areas (e.g. micrometer and ruler)	
			Use relationship scales (1/4 inch = 1 foot) in Building Trades, CAD and Machine Tool	
			Read an oscilloscope in Electronics and Automotive Technology	
			Calculate the square footage of a house	
			Calculate HVAC specifications/ needs of a new house	
			3. Perform data analysis, probability, and statistics	
			Describe quality control procedures	
			Use flow charts in designing products	
			Read and analyze gauges in pressure environments (e.g. HAVC and process control)	
			Read and analyze charts	
			Calculate basic descriptive statistics (e.g. averages, mode, median)	
			4. Explain patterns and relationships within and among functions and algebraic, geometric, and trigonometric concepts	
			Use formulas in electronics and electrical work (e.g. Ohm's law)	
			Use algebra to solve formulas	
			Use trigonometry	
			Use geometry (e.g. right triangle)	
			5. Use mathematical systems (including real numbers, whole numbers, integers, fractions) geometry, and number theory (including primes, factors, multiples)	
			Calculate paint formulations in Auto Collision Technology	
			Calculate pill amounts in pharmacology	
			Perform conversions (e.g. temperature, metric, standard, fractions to decimals/percentages)	
			Calculate fractions and percentages	
			Calculate a duty cycle in Automotive Technology	
			6. Use discrete mathematics (such as graph theory, counting techniques, matrices)	
			Explain how IP addresses are used in Computer Network Administration	
			Explain AND, OR gates in Electronics	
			Analyze an exhaust gas recirculation reading	
			Explain the break-even point in marketing	

SCIENCE

Yes	No	N/A		Notes:
			1. Describe and explain properties and principles of matter and energy	
			Explain the importance of a correct air/ fuel mixture in Automotive and Diesel Technology	
			Describe magnetism	
			Describe the combustion process in Automotive and Diesel Technology	
			Describe the curing process when working with concrete	
			Analyze various solvent-based products and describe why they cannot be mixed in Cabinet Making	
			2. Describe and explain properties and principles of force and motion	
			Explain how Supplemental Restraint Systems (airbags) release	
			Explain the basics of hydraulics and pneumatics	
			Explain the concept of torque	
			Describe gauge pressure in HVAC or process control environments	
			Demonstrate proper lifting techniques	
			3. Describe characteristics and interactions of living organisms	
			Describe geriatrics and their impact on society	
			Measure viral signs	
			Discuss anatomy and physiology (e.g. bones, muscles, respiratory, cardiovascular)	
			4. Describe changes in ecosystems and interactions of organisms with their environments	
			Describe how yeast interacts with other ingredients	
			Perform soil tests	
			Describe and diagram the food chain	
			Understand a client's concerns and feelings when entering a long-term care facility (e.g. losing privacy and respect for others)	
			5. Describe processes (such as plate movement, water cycle, airflow) and interactions of Earth's biosphere, atmosphere, lithosphere, and hydrosphere	
			Describe the effects that chemicals and pesticides can have	
			Explain the importance of crop rotation	
			Explain the effects of refrigerants on the environment	
			Describe the internal combustion process	
			Describe the effects that vehicle emissions have on the environment	

			6. Describe composition and structure of the universe and the motions of the objects within it	
			Develop a plot plan using GPS/GIS	
			Describe multiple transportation systems	
			7. Describe and apply processes of scientific inquiry (such as formulating and testing hypotheses)	
			Diagnose an engine using "engine-on" diagnostics	
			Perform a slump test on concrete to predict the proper composition for the job	
			Diagnose an engine using key-on/ computer diagnostics	
			8. Describe the impact of science, technology, and human activity on resources and the environment	
			Compare and contrast using chipboard versus a building material	
			Dispose of hazardous wastes properly	
			Describe plastic welding methods and the impact on recycling	
			Describe alternative fuel vehicles as it relates to natural resources	
			Demonstrate the proper usage of gloves when giving client care	

SOCIAL STUDIES

Yes	No	N/A		Notes:
			1. Describe and discuss the principles expressed in the documents shaping constitutional democracy in the United States	
			Describe the appeals process	
			Explain client rights in the health care	
			Explain workers' rights on the job site/ employment	
			Discuss civics and the responsibility of all citizens	
			2. Describe and discuss continuity and change in the history of Missouri, the United States and the world	
			Use history to determine the future (e.g. vehicle technology)	
			Discuss foreign markets	
			Discuss NAFTA and its impact on the manufacturing/ economic process	
			Describe the history of nursing (e.g. Florence Nightengale)	
			Describe the changes in client care in the healthcare profession throughout the years	
			3. Describe and discuss the principles and processes of governance systems	
			Explain the basics of the legal system and its impact on Criminal Justice programs	
			Discuss federal regulations, codes, and standards (e.g. FCC, OSHA, EPA, NTSB, DOT)	

			Demonstrate knowledge of the certification procedures and regulatory agencies (e.g. State Board of Nursing, State Board of Cosmetology, ASE/NATEF, etc.)	
			4. Define and explain economic concepts (including productivity and the market system) and principles (including the laws of supply and demand)	
			Create a budget for any trade area project	
			Manage money appropriately	
			Explain how a business works and what entrepreneurial skills are required to run a business	
			Define and discuss the Gross National Product (GNP)	
			Explain supply and demand, bartering, and the breakeven point	
			5. Describe and discuss the major elements of geographical study and analysis (such as location, place, movement, regions) and their relationships to changes in society and environment	
			Explain why it may be necessary to relocate for a temporary job (e.g. infrastructure and Internet wiring)	
			Research jobs that are available in the occupational field in a given geographical area	
			Discuss the needs/ characteristics of the geriatric population	
			6. Describe and discuss the relationships of the individual and groups to institutions and cultural traditions	
			Discuss diversity awareness (e.g. learning styles, socioeconomic, gender, race, and family issues)	
			Discuss unions and their impact on all aspects of society	
			Discuss the importance of trade associations	
			7. Describe and apply the use of tools and social science inquiry (such as surveys, statistics, maps, documents)	
			Explain the importance of customer service/ satisfaction and its impact on business/ industry	
			Perform geographic and demographic surveys to determine the needs of the industry	

FINE ARTS

Yes	No	N/A	1. Use processes and techniques for the production, exhibition or performance of one or more of the visual or performed arts	Notes:
			Create an advertising campaign	
			Design an Internet site	
			Design a floral arrangement	
			Use drafting to design a landscape	

			Design various promotional materials (e.g. brochures, posters, flyers, etc.)	
			2. Demonstrate the principles and elements of different art forms	
			Design a product using CAD	
			Design a food presentation	
			Design an architectural product	
			Design a hair style	
			3. Use the vocabulary to explain perceptions about and evaluations of works in dance, music, theatre and visual arts	
			Use the terms and definitions for the occupational field	
			Use the enhanced vocabulary for the occupational field	
			4. Discuss the interrelationships of visual and performing arts and the relationships of the arts to other disciplines	
			Discuss "form versus function" in Architectural and Product Design	
			Discuss photography as an art and how it is used to relay information	
			5. Describe and discuss the visual and performing arts in historical and cultural contexts	
			Describe the cycle of design (e.g. food and clothing)	
			Discuss foreign food preparation	
			Discuss foreign clothing designs	

HEALTH/PHYSICAL EDUCATION

Yes	No	N/A	1. Describe the structures of, functions of, and relationships among human body systems	Notes:
			Describe the processes and functions of various body systems	
			Describe how the various body systems interact	
			Describe the relationship of vital signs to the body	
			2. Describe the principles and practices of physical and mental health (such as personal health habits, nutrition, stress management)	
			Describe the food pyramid and recommended daily food group amounts	
			Describe the importance of daily exercise	
			3. Describe diseases and methods for prevention, treatment and control	
			Explain the importance of temperature control when preparing food	
			Describe the prevention and treatment of sexually transmitted diseases	
			Describe the prevention and treatment of AIDS	

			4. Explain and demonstrate principles of movement and physical fitness	
			Demonstrate proper lifting techniques on the job site	
			Explain ergonomics (e.g. how the work space is arranged and posture)	
			Demonstrate proper personal balance when using power tools and equipment	
			5. Explain and use methods for assessing health, reducing risk factors, and avoiding high-risk behaviors (such as violence, tobacco, alcohol and other drug use)	
			Use personal protective equipment	
			Explain abuse and the limitations that it can cause (e.g. physical and substance)	
			6. Explain consumer health issues (such as the effects of mass media and technologies on safety and health)	
			Explain back flow prevention in Process Control and Plumbing	
			Explain the importance of meeting building codes	
			Explain the importance of meeting Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) standards	
			Explain the importance of Supplemental Restraint Systems in vehicles	
			Explain the importance of reducing vehicle emissions	
			7. Follow accepted practices in responding to emergency situations	
			Follow specific safety procedures on the job site	
			Respond to crisis situations on the job site	
			Administer basic first aid	
			Explain the importance of 911 and how to use the service	
			Administer CPR	
			Follow long-term care facility guidelines and procedures for crisis situations during clinicals	